

REMARKS

Careful consideration has been given by the applicants to the Examiner's comments and rejection of various of the claims, as set forth in the outstanding Office Action, and favorable reconsideration of this application, which is an RCE, is earnestly solicited.

Concerning the foregoing, with regard to the previous final rejection of April 19, 2004, applicants gratefully note the Examiner's indication that at least Claims 31, 33, 34, 37 and 38 have already been allowed.

Furthermore, applicants note that Claims 35 and 36 would be allowable if appropriately amended to provide antecedent terminology; and Claims 32, 36 and 39-47 would also be allowed if amended pursuant to 35 U.S.C. §112, second paragraph, inasmuch as the specification lacks a clear disclosure as to the term "force transducer". Furthermore, various other relatively formal grounds of objection are set forth with respect to the claims.

Accordingly, in order to obviate the formal grounds of rejection and objection, as set forth by the Examiner, applicants have amended the specification without introducing any new subject matter by providing a clear reference to a publication, as also submitted in the accompanying Information Disclosure Statement, wherein the article from the Journal of Applied Physics of October 1, 2000, "Conformal Contact and Pattern Stability of Stamps Used for Soft Lithography", sets forth a clear description of the force transducer, which is set forth in these particular claims, as rejected under 35 U.S.C. §112. Accordingly, the claims have been amended to take care of appropriate antecedent terminology, as requested by the Examiner, and the publication is deemed to provide a clear definition of a force transducer in support of these claims.

Furthermore, applicants note with regard to the force transducer that this has now been explained in the specification, and the revision of page 15, with regard to Figure 3A and Figure 3F, provides a clear definition, as also supported by the publication being submitted with the Information Disclosure Statement. This should fully meet the Examiner's requirements in that regard.

Pertaining to the Examiner query as to the structure referring in the claims as printing structures 30 or the support structures 14, applicants submit as following in response thereto:

“The structures are the bars or steps 11 and 12 in Figure 3A that form a staircase. Collapse above higher levels of the staircase means higher normal forces. All structures (2) on the stamp are printing structures with the same topographic height. There is a distinction only from the viewpoint of the use of the printed structures: ‘Printing’ structures are structures required for production while ‘auxiliary’ structures are all other structures needed to make the printing process reliable and accurate (support structures, alignment structures, force transducer structures). According to this classification the force transducer structures are auxiliary structures. But as opposed to true mechanical support structures, they do not totally prevent collapse in between them, but allow a ‘controlled’ collapse to measure normal force or allow a distortion to measure lateral force.”

With regard to the Examiner's query as to the alleged lack of definition of “said structure depth” in the claims, applicants referred to the present specification on page 6, line 29 through page 7, line 4, wherein it is set forth that there is provided a description of the particular depths of the structures, concerning which also, applicants note as follows:

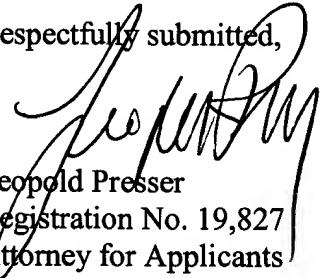
“For obtaining good print results, it appears that the thickness of the soft layer should be thicker than the sum of the thickness of the elastomeric stamp layer, plus the elastomeric pattern layer and should be softer preferably at least 5 times softer than the material of which the patterned layer consists of. The patterned layer surface of the stamp provides structures which contours will be transferred to the surface of the substrate during printing. The depth of said structure is typically 1 – 3 μm .”

Concerning the foregoing, and in order to more clearly emphasize the distinctions over the prior art, which is primarily applicants' own earlier publications, applicants have also cancelled Claims 39-47 without prejudice and in lieu thereof herewith present new Claims 48-76, wherein there are provided clear and patentable distinctions over any art known to the applicants.

Also, with regard to the foregoing, the various claims are directed to the distinct aspects of the invention in that in a broad manner new Claim 57 is essentially analogous to original Claim 3 with further limitations, and the various dependent claims, which are dependent or indirectly from Claim 57, refer to the concept of the force transducer, the micro fluidics and the self-aligning aspects.

All of these are clearly deemed to be distinct over the prior art, inasmuch as there is no disclosure of the particular carrier layers describing an x-y-plane in which the carrier layer is rigid and the carrier layer is flexible in a direction perpendicular to the x-y-plane and which facilitates the formation of the unique stamp device, not at all contemplated in the art.

In view of the foregoing comments and proposed amendments, this application is deemed to be in condition for allowance, and the early and favorable consideration by the Examiner is earnestly solicited. However, in the event that the Examiner has any queries concerning the instantly submitted Amendment, applicants' attorney respectfully requests that he be accorded the courtesy of possibly a telephone conference to discuss any matters in need of attention.

Respectfully submitted,

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